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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/888,964	06/25/2001	Charles Boice	EN9010004US1	1429
30400	7590	03/29/2005	EXAMINER	
HESLIN ROTHENBERG FARLEY & MESITI P.C.			VO, TUNG T	
5 COLUMBIA CIRCLE			ART UNIT	
ALBANY, NY 12203			PAPER NUMBER	

2613

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/888,964

Applicant(s)

BOICE ET AL.

Examiner

Tung Vo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 18-38 is/are pending in the application.
- 4a) Of the above claim(s) 17 and 39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 18-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1, 18, and 32 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In figure 7 the specification of the present invention discloses means for adapting an encode parameter in one or more encoders of the multiple encoders when no set of encode parameters of the sets of encode parameters employed by the multiple encoders reduces an encoded result which meets the encode objective. However, There is no “ means for *automatically* adapting” in the specification of the present invention. Therefore, the rejection (s) follows as best understand.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-16 and 18-39 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Boroczky et al. (US 6,859,496 B1) as shown in figures 2 and 5, cols. 2-5, as best understand.

Re claims 1-16 and 18-39, Boroczky discloses a system for encoding a sequence of video frames comprising: multiple encoders connected in parallel (fig. 3), each encoder to receive the sequence of video frames for encoding thereof (210, ENC. 1-ENC.n), wherein each encoder of said multiple encoders employs a set of encode parameters (bit rates, GOP), at least one encode parameter (MPEG has variable compression rate between encoders as shown in figure 5) of the sets of encode parameters being varied between at least two encoders of the multiple encoders connected in parallel; a controller (230 of fig. 3) coupled to the multiple encoders (210) for selecting one set of encode parameters from the sets of encode parameters which best meets an encode objective; and means (240 of fig. 3) for outputting a bit-stream of encoded video data

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encoded from the sequence of video frames using said one set of encode parameters; and means (230 of fig. 3) for automatically adapting an encode parameter in one or more encoders of the multiple encoders (390 of fig. 5) when no set of encode parameters of the sets of encode parameters employed by the multiple encoders reduces an encoded result which meets the encode objective (Step 390, NO GDP BOUNDARY OF ENC I, of fig. 5).

3. Claims 1-12, 17-27, 31-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki (5,850,527) as set forth in the previous Office Action dated 04/30/2004 and discussion follows as best understand.

Re claims 1-12, 18-27, 31-39, Suzuki discloses all limitations as set forth in the previous Office Action dated 04/30/2004 and wherein said controller (5 of fig. 5, see also CONTROL UNIT of fig. 19) further comprises means (9a of fig. 5; see also DETECTING UNIT of fig. 19) for automatically adapting (S2 of fig. 19, e.g. the line seizing is automatically feedback to the Step S1 when there is no line seizing) in one or more encoders of the multiple encoders *when no set of encode parameters* (NO LINE SEIZING) of the sets of encode parameters employed by the multiple encoders produces an encoded result which meets the encode objective (YES, LINE SEIZING, SELECTING (S3-S5 of fig. 19) ENCODER FOR ENCODING PROGRAM ACCORDING TO COMPRESSION RATE, S6-S12 of fig. 19), wherein selecting an encoded result of an encoder of the multiple encoders employing the selected one set of encode parameters, wherein the encoded result comprises the bitstream of encoded video data (Step S5-S9 of fig. 19).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 13-16 and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (5,850,527) as applied to claims 1, 12, 18, and 27, and further in view of Park et al. (US 5,528,628) as best understand.

Re claims 13-16 and 28-30, Suzuki further teaches the selecting unit (fig. 19) selects a program from the available list (fig. 9) and selects a compression method, since the compression method is selected the encoder encodes the video program according to the selected method (bit rate, transmission channel, request from a user). It is noted that Suzuki does not particularly teaches multiple buffers, and each buffer comprises memory for storing encoded video data comprising at least one encoded frame of the sequence of video frames and switching between the buffered encoded video data then provide to a subsystem encoder as claimed.

However, Park teaches wherein said means for outputting comprises multiple buffers (23(1)...23(N) of fig. 2), each buffer connected to an output of a respective encoder of ' said multiple encoders (21(1) ... 2141 of fig. 2), and means for forwarding a buffered encoded result of the encoder having the selected one set of encode parameters (25 and 25 of fig. 2); wherein each buffer comprises memory for storing encoded video data comprising at least one encoded frame of the sequence of video frames (1st BUFFER, 21(1) of fig. 2); wherein each buffer of said multiple buffers comprises memory for holding a number of encoded frames of the sequence

of video frames sufficient to allow said controller to select said encoded result which best meets the encode objective (23(1)...23(N), 25, and 26 of fig. 2); an encode subsystem, and means for switching between said means for selecting and said encode subsystem (26 of fig. 2), wherein said bit-stream of encoded video data can be taken as an output of one encoder of said multiple encoders, or can comprise an output of said encode subsystem as determined by said means for switching (col. 4, lines 47-55).

Taking the teachings of Suzuki and Park as a whole, it would have been obvious to one of ordinary skill in the art to incorporate the teachings of Park into the system of Suzuki to generate variable-length-coded (VLC) data into a minimum amount of data using a plurality of variable-length-code tables and subsequently transmits variable-length-code table selection information for the respective VLC data, thereby improving data compression efficiency.

Response to Arguments

6. Applicant's arguments filed 11/12/2004 have been fully considered but they are not persuasive.

The applicant argued that Suzuki an automatic adaptation of one or more encode parameters of one or more sets of encode parameters employed by the multiple parallel connected encoders when no set of encode parameters produces an encoded result which meets the defined encode objective, page 12 of the remarks.

The examiner respectfully disagrees with that applicant. It is submitted that Suzuki clearly discloses an automatic adaptation of one or more encode parameters of one or more sets of encode parameters employed by the multiple parallel-connected encoders (5, 9a of fig. 5, e.g.

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the detecting unit (9a) feedbacks the transmission request from a user to the controller (5), this is called the adaptation process, and the detecting unit detects an objective is not met then sent back to the control (S2, S1 of fig. 19), automatically feedback to the control) when no set of encode parameters produces an encoded result which meets the defined encode objective (NO, LINE SEIZING, STEP S2 of fig. 19). In view of the discussion above, Suzuki anticipates the claimed invention.

It is noted that if the newly added limitations, "automatically", is withdrawn, the rejected claims in the previous Office Action dated 04/30/2004 is proper, see below.

7. Claims 1-9, 11-24, 16-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Park et al. ('US 5,528,628) as set forth in the previous Office Action dated 04/30/2004.

8. Suzuki (5,850,527). Claims 1-12, 17-26, 31-39 are rejected under 35 U.S.C. 102(b) as being anticipated by as set forth in the previous Office Action dated 04/30/2004.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung Vo whose telephone number is 571-272-7340. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris. Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Tung Vo
Primary Examiner
Art Unit 2613